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An Inaugural Dissertation on Pracheitis

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The disease to which the term Trachitis, or Croup, has been applied, consists in an inflammation of the lining membrane of the Trachea and Larynx.

This affection may be primarily seated in the Trachea, as is generally the case, or it may be extended to it from a neighbouring part in which a morbid action exists.

Croup appears to have been but little known to the older writers, as their accounts of it are very unsatisfactory.

The first who gave a distinct and rational description of it, was Martin Ghisi, a Physician of Cremona, who published a treatise in 1749. Dr Home of Edinburgh, whose practice in this disease was very extensive, wrote an essay on it in 1765; and Michalis de Anginosa polyposa sive membranosa appeared in 1778, since which time

it has attracted a good deal of attention, and has often been the subject of medical investigation.

In the following essay I shall attempt to describe this disease, and point out the method of cure which has been found most successful. Croup, tho' peculiar to no country, is more frequent in cold damp climates than in those of a milder temperature —

It is very prevalent among the inhabitants of low situations near the sea coast, or on the banks of large rivers, where the atmosphere is loaded with aqueous vapours.

Moisture, perhaps, is the principle agent in producing the disease; by the long continuence of its application, the parts becoming debilitated and relaxed, are rendered less able to resist the impressions of a low temperature.

This appears the more probable, as Croup seldom occurs during

even the coldest weather provided the air be not humid. Tracheitis may be considered as a disease of childhood tho no period of life is exempt from its attacks;

There are well authenticated cases of men advanced in life having been affected by it. Professor Chapman mentions in his lectures, two ladies now residing in Philadelphia, the mothers of large families, who are so much predisposed to it, that they rarely escape on exposure

It has been supposed that the changes which take place in the larynx at puberty, by increasing its tone and vigor, empower it to resist the influence of debilitating agents. Be the cause what it may, it is certain that children from nine months to eight or ten years of age are the usual subjects of the complaint, and more especially such as are of a full

and plethoric habit.

I think I have also observed that in members of the same family, who are equally exposed to the influence of the exciting causes, those with fair complexions, fine smooth skins, blue eyes and that remarkable appearance which is said to indicate a tendency to Scrofula, are particularly liable to it.

Tracheitis has generally been divided by systematic authors, into spasmodic and inflammatory. Dr. Chapman gives it as his opinion, that whenever the attack is sudden, and violent, and death takes place in a short time, it may be considered as spasmodic, dissections in such cases showing no appearances of inflammation.

It is with great diffidence that I venture to differ from one who has written so ably on the subject, but I am rather

inclined to believe that in every instance it depends on inflammation, and that spasm is the effect, not the cause.

It is true the appearances on dissection would often warrant the former opinion, but we must recollect that nothing can be more deceptive than post mortem examinations, in many of the inflammatory affections, particularly those which are seated in secreting tissues. The presence of blood in an inflamed part is influenced by irritation when on the approch of death irritation ceases, the blood is thrown into the larger vessels, and unlesS inflammation has been sufficiently great to produce effusion into the surrounding textures, no trace of it remains; of this many examples might be adduced. The causes which produce it, the treatment indicated, and its usual termination, alike point it out as belonging

strictly to the phlegmasiæ. But whether it be of a spasmodic or inflammatory nature (as Dr. C. very justly remarks) is a matter of not the least practical importance, the remedies indicated in either case being precisely the same

Of the Symptoms

An attack of Croup most commonly follows an unusual exposure to the weather during a cold raw day, tho' it sometimes makes its appearance without any apparent cause.

The child towards evening appears dull and listless, feels an aversion to his usual amusements and expresses a desire to sleep.

As the disease advances, the voice becomes hoarse, the respiration is laborious and wheezing and is frequently interrupted by a cough of such a peculiar character as to be considered the most infallible diagnostic

symptom. This cough has been said to resemble the barking of a little dog, the crowing of a cock, and also the voice of a person speaking through a brass tube, it is a very remarkable sound and when once heard will never be forgotten. There is generally an expectoration of a thick viscid mucus, which blocks up the larynx, and produces a sense of suffocation, very distressing to the patient; he starts up, violently agitated, tosses himself about and by frequent change of posture endeavours to obtain relief.

The pulse is quick, irregular and weak, the skin dry and hot, the thirst great the power of swallowing in some measure impeded.

The face in the commencement of the attack is much flushed and during its progress assumes a dark red or purple hue. The disease may continue in this way for

several days, with occasionally slight intermissions, the child becoming gradually weaker, after each paroxysm, till finally he expires with all the appearances of strangulation.

This is the usual form of an attack of croup — In those cases where the inflammatory symtoms are most prominent, it comes on gradually, and is preceded by pyrexia, loss of appetite, and the other concomitants of a febrile affection.

On dissection the Trachea and bronchial ramifications commonly appear inflamed, filled with mucus, or lined with a deposition of lymph in the form of a membrane.

Where the disease has been protracted, and assumed somewhat of a chronic state, there often appears streaks of pus, showing a more advanced stage of inflammation.

There are also marks of congestion in the lungs.

The treatment may be divided into two parts: First, that proper in the early or inflammatory stage, and secondly, that which is indicated in the more advanced or pulmonick form.

As the disease when it comes on suddenly, is generally rapid in its progress, and if not arrested in its first diurnal paroxysm, commonly terminates fatally in the second, it follows that our practice should be prompt and vigorous in the commencement of an attack.

Venesection being the most effectual ought certainly to be the first remedy resorted to. By its operation the spasm is relaxed, the tendency to inflammation abated and the susceptibility of the system to the impression of medicines is restored. To be of service the quantity of blood drawn should be large,

and if the urgent symptoms are not check=
=ed in a short time, by the auxiliary me=
=dus, the bleeding should be repeated.

An emetic may now be administered; from twenty to sixty drops of antimonial wine every ten or fifteen minutes may be given, to a child twelve months old. If the medicine is tardy in its operation two or three grains of ipecacuanhae may be added to each dose till the effect is induced.

The system being almost insensible to the impressions of medicines in some cases, we shall find it necessary to give the emetic in very large doses.

When the emetic operates well, it will be followed by the most beneficial effects.—

Expectoration is increased; the lungs re=
=lieved of the load of phlegm which oppresses them; excitement is equalized, and the dis=
=position to febrile action subdued. In

In conjunction with venesection and emet=
=ics, we should employ the warm bath, which,
independant of its antispasmodic and relax=
=ing properties, tends to accelerate the opera=
=tion of the other remedies.

This is generally all that will be required
in most instances; but we sometimes meet
with an attack so obstinate that no remission
of its violence takes place notwithstanding
the above pratice has been vigorously pursued;

It will now become necessary to apply
sinapisms to the throat and neck; Sina=
=pisms I think are better than blisters, their
action is more prompt and we obtain
their full effect in a much shorter time.

The application of a number of leeches
to the neck has also been highly recom=
=mended, but I think they may be dis=
=pensed with as they prove a source of
great irritation and render the child

very restless and uncomfortable, and their cold wet bodies may also aggravate the disease.

But the remedy on which we place our chief reliance at this dangerous juncture, is bloodletting carried so far that a state equivalent to fainting is induced; This (in the language of Dr. Dick who first carried it to this extent) is of all known remedies the most certain – The Dr states that in a multitude of cases in which he tried the practice it had never failed when seasonably applied, that is in the early stage or first diurnal paroxysm, previous to the inflammation and congestion extending to the lungs. The difficulty of breathing and other distressing symptoms cease from the instant syncope is induced, leaving the child weak and debilitated, but free from disease, except a hoarseness which may

be treated by a dose of Calomel, followed by magnesia, Castor oil, or any other cathartic. And then giving at intervals of three or four hours, small nauseating doses of antimonial wine in a few teaspoonfuls of Seneka Tea, or what perhaps may answer better, small doses of Ipe Syrup.

It sometimes happens that in consequence of the disease having been improperly treated or entirely neglected in the commencement, it extends to the lungs, producing a Catarhal State of those organs, from the exudation of lymph or an accumulation of mucus which the child is unable to expectorate. Or what is far more to be apprehended, a congestion or engorgement may have followed the protraction of the disease.
In this stage of the complaint the un-

unfavorable symptoms above mentioned are increased in violence: The dyspnoea becomes very distressing, the pulse is small, weak, and very frequent: The face assumes an ashy or leaden colour and a general debility and prostration supervene.

When from the expectoration and cough (which it is said never occurs in the engorged state) we have reason to suppose it depends on collection of mucus, our chief dependance must be placed in emetics and the warm bath which should be continued till relief is obtained. In the engorged state of the lungs small and repeated bleedings, Calomel largely administered, together with cups and blisters to the thorax constitute the treatment I would recommend.

It has been said by Dr Rush that Peruvian Bark is not a more valuable remedy in intermittent than calomel.

in cynanche trachealis, and the result of several cases which occurred in the practice of my preceptor, and came immediately under my own observation, has inspired me with full confidence in its efficacy.

In the cases alluded to the disease had been suffered to exist for sometime before medical advice was requested, and became so firmly established that emetics, venesection, the warm bath and all the usual means, were tried without success. At this perilous juncture, the mercurial practice as recommended by Dr. Hamilton was had recourse to, and pushed to its utmost extent: to the child which was about three years old, 140 grains of calomel were administered in less than twenty hours. By its operation the most complete relief was obtained, and that previous to any evacuation, for the bowels remained obstinately

constipated untill the disease yielded.
The child recovered without any recurrence of bad symptons. As the other cases (amounting to four or five) were very similar to the preceding it will be unnecessary to give a particular detail of them.

I know that objections have been made to this method of treating croup, and that too by the author of the practice himself as well as many other respectable physicians; in answer to this I must say that when from my own observation I know a remedy to be effectual in the removal of a disease, I feel myself bound to prescribe it independant of all authority.